Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently Amended): A method of detecting a rogue access point by a client comprising the steps of:

directing a packet from a supplicant to a network through an access point;

receiving a network response packet by the supplicant from the access point;

determining that ~~whether~~ the access point is ~~one of a valid network access point is one of a valid network access point and~~ a rogue access point based on ~~whether~~ the network response packet received from the access point ~~is respectively~~ in ~~one of conformity and~~ being in nonconformity with predetermined expectations;

authenticating through a valid access point to the network; and

reporting the rogue access point to the network through the valid access point .

Claim 2. (Currently Amended): The method of claim 1 ~~wherein, if the access point is determined to be a valid network access point~~, further comprising the step of authenticating the supplicant to the network.

Claims 3 and 4. (Canceled)

Claim 5. (Original): The method of claim 1 wherein the predetermined expectations comprise data traffic conforming with IEEE 802.1X standards.

Claim 6. (Currently Amended): The method of claim 1 wherein the predetermined expectations comprise a mutual authentication to the network, wherein non[[-]]conformity is determined by a failure of the mutual authentication.

Claim 7. (Original): The method of claim 6 wherein the mutual authentication comprises:

issuing a challenge from the server to the client;

issuing a counter-challenge from the client to the server;

wherein mutual authentication fails at the counter-challenge since the access point's username and password are not found in the server's database.

Claim 8. (Original): The method of claim 6 wherein the mutual authentication comprises:

directing a message containing identity credentials from the supplicant, through the access point, to an authentication server;

validating the identity credentials of the supplicant using the authentication server;

forwarding a send key from the authentication server to the supplicant through the access point;

independently deriving a session key from the send key and the identity credentials by the supplicant and the authentication server;

encrypting data packets between the supplicant and the authentication server using the derived session key.

Claim 9. (Original): The method of claim 8 wherein the credentials are a username/password combination.

Claim 10. (Original): The method of claim 8 further comprising:

prior to the step of directing, sending a start message from the supplicant to the access point;

sending an identity request message from the access point to the supplicant; and

wherein the step of directing a message comprises sending an identity response message containing the identity credentials form the supplicant to the access point in response to the identity request message, and forwarding the identity response message from the access point to the authentication server.

Claim 11. (Original): The method of claim 10 wherein the authentication server is a RADIUS server and wherein the identity response message is in the form of a RADIUS access request, wherein the method further comprises the steps of:

responding to the RADIUS access request with a RADIUS challenge from the authentication server to the supplicant; and responding from the supplicant to the RADIUS challenge according to the RADIUS protocol.

Claim 12. (Original): The method of claim 11 wherein the steps of validating and forwarding comprise sending the supplicant a RADIUS accept message and wherein the send key comprises an MS-MPPE-Send-key.

Claim 13. (Original): The method of claim 8 wherein the step of forwarding a send key comprises supplying key length and key index to specify encryption parameters for the session key.

Claim 14. (Original): The method of claim 10 wherein the encryption parameters are based on one of a 40/64-bit and a 104/128-bit key.

Claim 15. (Original): The method of claim 8 further comprising the initial step of configuring the supplicant in a device mode where the identity credentials are stored on a network card for non-interactive authentication by a user.

Claim 16. (Original): The method of claim 8 further comprising the initial step of configuring the supplicant in a network logon mode where the identity credentials are integrated into a network logon to enable a single sign-on for network authentication and PC network logon.

Claim 17. (Original): The method of claim 8 further comprising the initial step of establishing authenticator support comprising:

configuring the access point to use one of 40/64-bit and 104/128-bit WEP mode; and

providing the access point with the authentication server address and encryption scheme to be used for communication.

Claim 18. (Original): The method of claim 8 further comprising the initial step of establishing the authentication server comprising:

setting up a user database selected from at least one of a local database and a network database; and

setting up the access point as a network access server.

19. (Original): The method of claim 8 wherein the supplicant, access point and authentication server are part of a wireless local area network.

20. (Original): The method of claim 8 wherein the supplicant, access point and authentication server are part of a hard-wired local area network.

Claim 21. (Currently Amended): ~~An arrangement~~client configured with a supplicant for detecting a rogue access point comprising:

means for directing a packet from [[a]]the supplicant to a network through an access point;

means for receiving a network response packet by the supplicant from the access point;

means for determining whether the access point is ~~one of a valid network access point is one of a valid network access point and~~ a rogue access point based on ~~whether~~ the network response packet received from the access point ~~is respectively in one of conformity and~~ being in nonconformity with predetermined expectations;

means adapted for reporting the rogue access point through a valid access point that the client is able to authenticate via the means for directing, the means for receiving and the means for determining.

Claim 22. (Currently Amended): The ~~arrangement~~ client of claim 21 further comprising means for authenticating the supplicant to the network, if the access point is determined to be a valid network access point.

Claims 23 and 24 (Canceled).

Claim 25. (Currently Amended): The ~~arrangement~~ client of claim 21 wherein the predetermined expectations comprise data traffic conforming with IEEE 802.1X standards.

Claim 26. (Currently Amended): The ~~arrangement~~ client of claim 1 wherein the predetermined expectations comprise a mutual authentication to the network, wherein non-conformity is determined by a failure of the mutual authentication.

Claim 27. (Currently Amended): The ~~arrangement~~ client of claim 21 wherein the means for mutual authentication comprises:

means for directing a message containing identity credentials from the supplicant, through the access point, to an authentication server;

means for validating the identity credentials of the supplicant using the authentication server;

means for forwarding a send key from the authentication server to the supplicant through the access point;

means for independently deriving a session key from the send key and the identity credentials by the supplicant and the authentication server;

means for encrypting data packets between the supplicant and the authentication server using the derived session key.

Claim 28. (Currently Amended): The ~~arrangement~~ client of claim 27 wherein the credentials are a username/password combination.

Claim 29. (Currently Amended): The ~~arrangement~~ client of claim 27 further comprising:

~~prior to the means for directing, providing~~ means for sending a start message from the supplicant to the access point prior to the means for directing;

means for sending an identity request message from the access point to the supplicant; and

wherein the means for directing a message comprises means for sending an identity response message containing the identity credentials form the supplicant to the access point in response to the identity request message, and means for forwarding the identity response message from the access point to the authentication server.

30. (Currently Amended): The ~~arrangement~~ client of claim 29 wherein the authentication server is a RADIUS server and wherein the identity response message is in the form of a RADIUS access request, wherein the arrangement further comprises:

means for responding to the RADIUS access request with a RADIUS challenge from the authentication server to the supplicant; and means for responding from the supplicant to the RADIUS challenge according to the RADIUS protocol.

Claim 31. (Currently Amended): The ~~arrangement~~ client of claim 29 wherein the means for validating and forwarding comprise means for sending the supplicant a RADIUS accept message and wherein the send key comprises an MS-MPPE-Send-key.

Claim 32. (Currently Amended): The ~~arrangement~~ client of claim 27 wherein the means for forwarding a send key comprises means for supplying key length and key index to specify encryption parameters for the session key.

Claim 33. (Currently Amended): The ~~arrangement~~ client of claim 32 wherein the encryption parameters are based on one of a 40/64-bit and a 104/128-bit key.

Claim 34. (Currently Amended): The ~~arrangement~~ client of claim 27 wherein the supplicant, access point and authentication server are part of a wireless local area network.

Claim 35. (Currently Amended): The ~~arrangement~~ client of claim 27 wherein the supplicant, access point and authentication server are part of a hard-wired local area network.